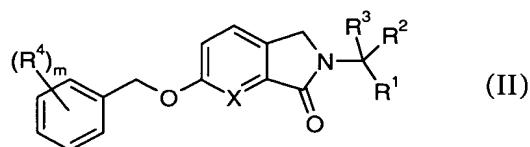
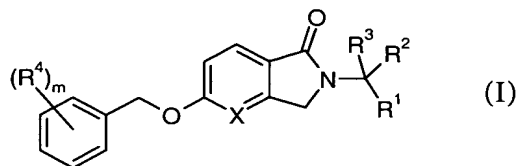


## Claims

1. A compound of formula I or II



wherein

X is  $-N=$  or  $-CH=$ ;

$R^1$  is  $-(CH_2)_n-CO-NR^5R^6$ ,  $-(CH_2)_n-NR^5R^6$ ,  $-(CH_2)_n-COOR^7$ ,  $-(CH_2)_n-CN$ ,  $-(CH_2)_n$ -isindole-1,3-dionyl, or  $-(CH_2)_p-OR^8$ ;

$R^2$  is hydrogen,  $C_1-C_6$ -alkyl, or OH;

$R^3$  is hydrogen or  $C_1-C_6$ -alkyl;

$R^4$  is  $(C_1-C_6)$ -alkyl, halogen, halogen- $(C_1-C_6)$ -alkyl,  $C_1-C_6$ -alkoxy or halogen- $(C_1-C_6)$ -alkoxy;

$R^5$  and  $R^6$  are each independently hydrogen or  $C_1-C_6$ -alkyl;

$R^7$  is  $C_1-C_6$ -alkyl;

$R^8$  is hydrogen or  $C_1-C_6$ -alkyl;

m is 1, 2 or 3;

n is 0, 1 or 2; and

p is 1 or 2;

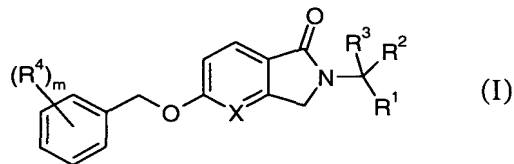
or a pharmaceutically acceptable salt thereof.

2. A compound of claim 1 wherein m is 1 or 2.

3. A compound of claim 2 wherein m is 1.

4. A compound of claim 1 wherein  $R^4$  is halogen or halogen- $(C_1-C_6)$ -alkyl.

5. A compound of claim 4 wherein R<sup>4</sup> is fluorine or trifluoromethyl.
6. A compound of claim 1 wherein X is -CH=.
7. A compound of formula I



wherein

X is -N= or -CH=;

R<sup>1</sup> is -(CH<sub>2</sub>)<sub>n</sub>-CO-NR<sup>5</sup>R<sup>6</sup>, -(CH<sub>2</sub>)<sub>n</sub>-NR<sup>5</sup>R<sup>6</sup>, -(CH<sub>2</sub>)<sub>n</sub>-COOR<sup>7</sup>, -(CH<sub>2</sub>)<sub>n</sub>-CN, -(CH<sub>2</sub>)<sub>n</sub>-isindole-1,3-dionyl, or -(CH<sub>2</sub>)<sub>p</sub>-OR<sup>8</sup>;

R<sup>2</sup> is hydrogen, C<sub>1</sub>-C<sub>6</sub>-alkyl, or OH;

R<sup>3</sup> is hydrogen or C<sub>1</sub>-C<sub>6</sub>-alkyl;

R<sup>4</sup> is (C<sub>1</sub>-C<sub>6</sub>)-alkyl, halogen, halogen-(C<sub>1</sub>-C<sub>6</sub>)-alkyl, C<sub>1</sub>-C<sub>6</sub>-alkoxy or halogen-(C<sub>1</sub>-C<sub>6</sub>)-alkoxy;

R<sup>5</sup> and R<sup>6</sup> are each independently hydrogen or C<sub>1</sub>-C<sub>6</sub>-alkyl;

R<sup>7</sup> is C<sub>1</sub>-C<sub>6</sub>-alkyl;

R<sup>8</sup> is hydrogen or C<sub>1</sub>-C<sub>6</sub>-alkyl;

m is 1, 2 or 3;

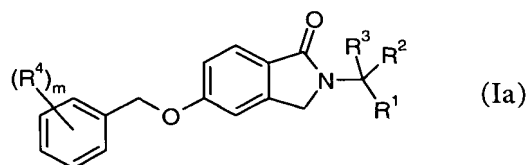
n is 0, 1 or 2; and

p is 1 or 2;

or a pharmaceutically acceptable salt thereof.

8. A compound of claim 7 wherein R<sup>3</sup> is hydrogen.
9. A compound of claim 7 wherein m is 1 or 2.
10. A compound of claim 9 wherein m is 1.

11. A compound of claim 7 wherein  $R^2$  is hydrogen or  $C_1$ - $C_6$ -alkyl.
12. A compound of claim 11 wherein  $R^2$  is hydrogen.
13. A compound of claim 11 wherein  $R^2$  is methyl.
14. A compound of claim 7 wherein  $R^1$  is  $CONH_2$  or  $CH_2OCH_3$ .
15. A compound of claim 7 wherein  $R^8$  is  $C_1$ - $C_6$ -alkyl.
16. A compound of claim 15 wherein  $R^1$  is  $-(CH_2)_p-OR^8$ .
17. A compound of claim 15 wherein  $R^1$  is  $-(CH_2)_n-CO-NR^5R^6$  or  $-(CH_2)_p-OR^8$ ;  $R^5$  and  $R^6$  are hydrogen;  $n$  is 0; and  $p = 1$ .
18. A compound of claim 7 wherein  $R^1$  is  $-(CH_2)_n-CO-NR^5R^6$ ,  $-(CH_2)_n-COOR^7$ ,  $-(CH_2)_n-CN$ ,  $-(CH_2)_n$ -isoindole-1,3-dionyl, or  $-(CH_2)_p-OR^8$ ;  $R^5$  and  $R^6$  are hydrogen;  $n$  is 0 or 1; and  $p$  is 1.
19. A compound of claim 7 wherein  $X$  is  $-N=$ .
20. A compound of claim 7 wherein  $X$  is  $-CH_2-$ .
21. A compound of formula I



wherein

- $R^1$  is  $-(CH_2)_n-CO-NR^5R^6$ ,  $-(CH_2)_n-NR^5R^6$ ,  $-(CH_2)_n-COOR^7$ ,  $-(CH_2)_n-CN$ ,  $-(CH_2)_n$ -isoindole-1,3-dionyl, or  $-(CH_2)_p-OR^8$ ;
- $R^2$  is hydrogen,  $C_1$ - $C_6$ -alkyl, or OH;

$R^3$  is hydrogen or  $C_1$ - $C_6$ -alkyl;  
 $R^4$  is  $(C_1-C_6)$ -alkyl, halogen, halogen- $(C_1-C_6)$ -alkyl,  $C_1$ - $C_6$ -alkoxy or halogen- $(C_1-C_6)$ -alkoxy;  
 $R^5$  and  $R^6$  are each independently hydrogen or  $C_1$ - $C_6$ -alkyl;  
 $R^7$  is  $C_1$ - $C_6$ -alkyl;  
 $R^8$  is hydrogen or  $C_1$ - $C_6$ -alkyl;  
 $m$  is 1, 2 or 3;  
 $n$  is 0, 1 or 2; and  
 $p$  is 1 or 2;  
 or a pharmaceutically acceptable salt thereof.

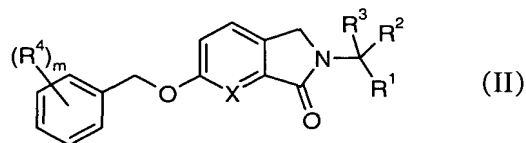
22. A compound of claim 21 wherein  $R^1$  is  $-(CH_2)_n-CO-NR^5R^6$ .

23. A compound of claim 21 wherein  $R^1$  is  $-(CH_2)_n-CO-NR^5R^6$ ,  $-(CH_2)_n-COOR^7$ ,  $-(CH_2)_n-CN$ ,  $-(CH_2)_n$ -isoindole-1,3-dionyl, or  $-(CH_2)_p-OR^8$ ;  $R^3$  is hydrogen;  $R^4$  is halogen or halogen- $(C_1-C_6)$ -alkyl;  $R^5$  and  $R^6$  are hydrogen;  $m$  is 1 or 2;  $n$  is 0 or 1; and  $p$  is 1.

24. A compound of claim 21 wherein  $R^1$  is  $-(CH_2)_n-CO-NR^5R^6$  or  $-(CH_2)_p-OR^8$ ;  $R^2$  is hydrogen or  $C_1$ - $C_6$ -alkyl;  $R^3$  is hydrogen;  $R^4$  is halogen or halogen- $(C_1-C_6)$ -alkyl;  $R^5$  and  $R^6$  are hydrogen;  $R^8$  is  $C_1$ - $C_6$ -alkyl;  $m$  is 1;  $n$  is 0; and  $p$  is 1.

25. A compound of claim 21 wherein  $R^1$  is  $CO-NH_2$  or  $CH_2OCH_3$ ;  $R^2$  is hydrogen or methyl;  $R^3$  is hydrogen;  $R^4$  is fluorine or trifluoromethyl; and  $m$  is 1.

26. A compound of formula II



wherein

$X$  is  $-N=$  or  $-CH=$ ;  
 $R^1$  is  $-(CH_2)_n-CO-NR^5R^6$ ,  $-(CH_2)_n-NR^5R^6$ ,  $-(CH_2)_n-COOR^7$ ,  $-(CH_2)_n-CN$ ,  $-(CH_2)_n$ -isoindole-1,3-dionyl, or  $-(CH_2)_p-OR^8$ ;

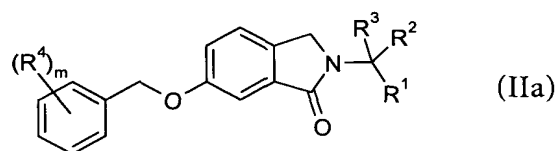
$R^2$  is hydrogen,  $C_1$ - $C_6$ -alkyl, or OH;  
 $R^3$  is hydrogen or  $C_1$ - $C_6$ -alkyl;  
 $R^4$  is ( $C_1$ - $C_6$ )-alkyl, halogen, halogen-( $C_1$ - $C_6$ )-alkyl,  $C_1$ - $C_6$ -alkoxy or halogen-( $C_1$ - $C_6$ )-alkoxy;  
 $R^5$  and  $R^6$  are each independently hydrogen or  $C_1$ - $C_6$ -alkyl;  
 $R^7$  is  $C_1$ - $C_6$ -alkyl;  
 $R^8$  is hydrogen or  $C_1$ - $C_6$ -alkyl;  
 $m$  is 1, 2 or 3;  
 $n$  is 0, 1 or 2; and  
 $p$  is 1 or 2;  
 or a pharmaceutically acceptable salt thereof.

27. A compound of claim 26 wherein  $m$  is 1.
28. A compound of claim 26 wherein  $R^3$  is hydrogen.
29. A compound of claim 26 wherein  $R^1$  is  $-(CH_2)_n-CO-NR^5R^6$ .
30. A compound of claim 26 wherein  $R^1$  is  $-(CH_2)_n-COOR^7$ .
31. A compound of claim 26 wherein  $R^1$  is  $-(CH_2)_n-NR^5R^6$ .
32. A compound of claim 26 wherein  $R^2$  is hydrogen or  $C_1$ - $C_6$ -alkyl.
33. A compound of claim 32 wherein  $R^2$  is hydrogen.
34. A compound of claim 32 wherein  $R^2$  is methyl.
35. A compound of claim 26 wherein  $R^4$  is halogen or halogen-( $C_1$ - $C_6$ )-alkyl.
36. A compound of claim 35 wherein  $R^4$  is fluorine or trifluoromethyl.

37. A compound of claim 26 wherein  $R^8$  is  $C_1$ - $C_6$ -alkyl.
38. A compound of claim 37 wherein  $R^1$  is  $-(CH_2)_p-OR^8$ .
39. A compound of claim 37 wherein  $R^1$  is  $-(CH_2)_n-CO-NR^5R^6$ ,  $-(CH_2)_n-NR^5R^6$ ,  $-(CH_2)_n-COOR^7$ ,  $-(CH_2)_n-CN$ , or  $-(CH_2)_p-OR^8$ ;  $R^5$  and  $R^6$  are hydrogen;  $n$  is 0; and  $p$  is 1.
40. A compound of claim 37 wherein  $R^1$  is  $-(CH_2)_n-CO-NR^5R^6$ ,  $-(CH_2)_n-NR^5R^6$ ,  $-(CH_2)_n-COOR^7$ , or  $-(CH_2)_p-OR^8$  and  $m$  is 1.
41. A compound of claim 26 wherein  $R^1$  is  $CONH_2$ ,  $CH_2NH_2$ ,  $COOCH_3$ , or  $CH_2OCH_3$ .

42. A compound of claim 26 wherein  $X = -N=$ .

43. A compound of formula IIa



- $R^1$  is  $-(CH_2)_n-CO-NR^5R^6$ ,  $-(CH_2)_n-NR^5R^6$ ,  $-(CH_2)_n-COOR^7$ ,  $-(CH_2)_n-CN$ ,  $-(CH_2)_n$ -isoindole-1,3-dionyl, or  $-(CH_2)_p-OR^8$ ;
- $R^2$  is hydrogen,  $C_1$ - $C_6$ -alkyl, or  $OH$ ;
- $R^3$  is hydrogen or  $C_1$ - $C_6$ -alkyl;
- $R^4$  is  $(C_1-C_6)$ -alkyl, halogen, halogen- $(C_1-C_6)$ -alkyl,  $C_1$ - $C_6$ -alkoxy or halogen- $(C_1-C_6)$ -alkoxy;
- $R^5$  and  $R^6$  are each independently hydrogen or  $C_1$ - $C_6$ -alkyl;
- $R^7$  is  $C_1$ - $C_6$ -alkyl;
- $R^8$  is hydrogen or  $C_1$ - $C_6$ -alkyl;
- $m$  is 1, 2 or 3;
- $n$  is 0, 1 or 2; and
- $p$  is 1 or 2;
- or a pharmaceutically acceptable salt thereof.

44. A compound of claim 43 wherein  $R^1$  is  $-(CH_2)_n-CO-NR^5R^6$ ,  $-(CH_2)_n-NR^5R^6$ ,  $-(CH_2)_n-COOR^7$ ,  $-(CH_2)_n-CN$ , or  $-(CH_2)_p-OR^8$ ;  $R^2$  is hydrogen or  $C_1-C_6$ -alkyl;  $R^3$  is hydrogen;  $R^4$  is halogen or halogen- $(C_1-C_6)$ -alkyl;  $R^5$  and  $R^6$  are hydrogen;  $R^8$  is  $C_1-C_6$ -alkyl; m is 1; n is 0; and p is 1.

45. A compound of claim 43 wherein  $R^1$  is  $-(CH_2)_n-CO-NR^5R^6$ ,  $-(CH_2)_n-NR^5R^6$ ,  $-(CH_2)_n-COOR^7$ , or  $-(CH_2)_p-OR^8$ ;  $R^2$  is hydrogen or  $C_1-C_6$ -alkyl;  $R^3$  is hydrogen;  $R^4$  is halogen or halogen- $(C_1-C_6)$ -alkyl;  $R^5$  and  $R^6$  are hydrogen;  $R^8$  is  $C_1-C_6$ -alkyl; m is 1; n is 0; and p is 1.

46. A compound of claim 43 wherein  $R^1$  is  $CONH_2$ ,  $CH_2NH_2$ ,  $COOCH_3$ ,  $CH_2OCH_3$ ;  $R^2$  is hydrogen or methyl;  $R^3$  is hydrogen;  $R^4$  is fluorine or trifluoromethyl; and m is 1.

47. A compound selected from  
2-[5-(3-fluoro-benzyloxy)-1-oxo-1,3-dihydro-isoindol-2-yl]-acetamide,  
2-[5-(3-fluoro-benzyloxy)-1-oxo-1,3-dihydro-isoindol-2-yl]-propionamide,  
(S)-2-[6-(3-fluoro-benzyloxy)-1-oxo-1,3-dihydro-isoindol-2-yl]-propionamide,  
(R)-2-[6-(3-fluoro-benzyloxy)-1-oxo-1,3-dihydro-isoindol-2-yl]-propionamide,  
2-[5-(4-fluoro-benzyloxy)-1-oxo-1,3-dihydro-isoindol-2-yl]-acetamide, or  
2-[1-oxo-5-(4-trifluoromethyl-benzyloxy)-1,3-dihydro-isoindol-2-yl]-acetamide.

48. A compound which is 5-(3-fluoro-benzyloxy)-2-(2-methoxy-ethyl)-2,3-dihydro-isoindol-1-one.

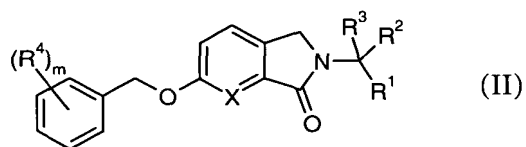
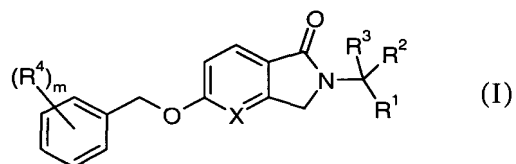
49. A compound selected from  
2-[6-(3-fluoro-benzyloxy)-1-oxo-1,3-dihydro-isoindol-2-yl]-acetamide,  
(R)-2-[6-(3-fluoro-benzyloxy)-1-oxo-1,3-dihydro-isoindol-2-yl]-propionamide,  
(S)-2-[1-oxo-6-(4-trifluoromethyl-benzyloxy)-1,3-dihydro-isoindol-2-yl]-propionamide,  
and  
(R)-2-[1-oxo-6-(4-trifluoromethyl-benzyloxy)-1,3-dihydro-isoindol-2-yl]-propionamide.

50. A compound selected from  
[6-(3-fluoro-benzyloxy)-1-oxo-1,3-dihydro-isoindol-2-yl]-acetic acid methyl ester and  
[1-oxo-6-(4-trifluoromethyl-benzyloxy)-1,3-dihydro-isoindol-2-yl]-acetic acid methyl ester.

51. A compound selected from  
2-(2-methoxy-ethyl)-6-(3-fluoro-benzyloxy)-2,3-dihydro-isoindol-1-one and  
2-(2-methoxy-ethyl)-6-(4-trifluoromethyl-benzyloxy)-2,3-dihydro-isoindol-1-one.

52. A compound selected from  
2-(2-amino-ethyl)-6-(4-trifluoromethyl-benzyloxy)-2,3-dihydro-isoindol-1-one 1:1  
hydrochloride and  
2-(2-amino-ethyl)-6-(4-trifluoromethyl-benzyloxy)-2,3-dihydro-isoindol-1-one 1:1  
hydrochloride.

53. A composition comprising a compound of formula I or II



wherein

X is  $-N=$  or  $-CH=$ ;

$R^1$  is  $-(CH_2)_n-CO-NR^5R^6$ ,  $-(CH_2)_n-NR^5R^6$ ,  $-(CH_2)_n-COOR^7$ ,  $-(CH_2)_n-CN$ ,  
 $-(CH_2)_n$ -isoindole-1,3-dionyl, or  $-(CH_2)_p-OR^8$ ;

$R^2$  is hydrogen,  $C_1$ - $C_6$ -alkyl, or OH;

$R^3$  is hydrogen or  $C_1$ - $C_6$ -alkyl;

$R^4$  is  $(C_1-C_6)$ -alkyl, halogen, halogen- $(C_1-C_6)$ -alkyl,  $C_1$ - $C_6$ -alkoxy or  
halogen- $(C_1-C_6)$ -alkoxy;



$R^5$  and  $R^6$  are each independently hydrogen or  $C_1$ - $C_6$ -alkyl;

$R^7$  is  $C_1$ - $C_6$ -alkyl;

$R^8$  is hydrogen or  $C_1$ - $C_6$ -alkyl;

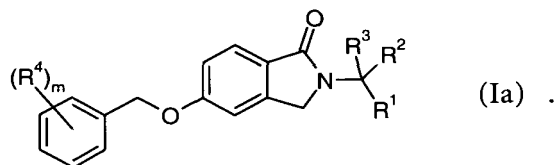
$m$  is 1, 2 or 3;

$n$  is 0, 1 or 2; and

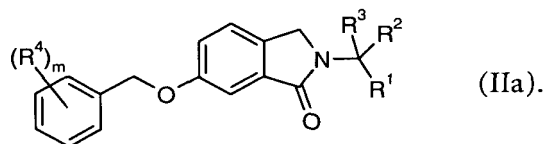
$p$  is 1 or 2;

or a pharmaceutically acceptable salt thereof and a pharmaceutically acceptable carrier.

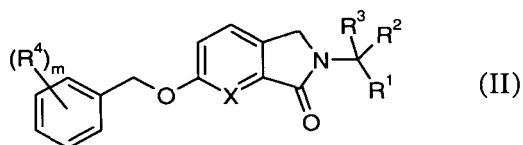
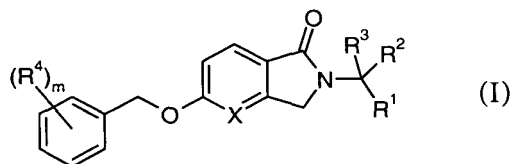
54. A composition of claim 53 wherein the compound is a compound of formula Ia



55. A composition of claim 53 wherein the compound is a compound of formula IIa



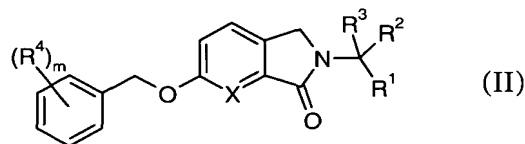
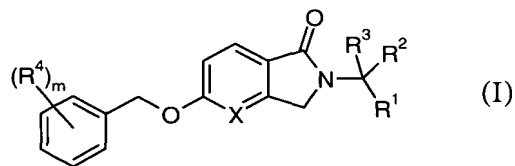
56. A method of treating Alzheimer's disease by administering to an individual an effective amount of a compound of formula I or II



wherein

X is  $-\text{N}=\text{}$  or  $-\text{CH}=\text{}$ ;  
 $\text{R}^1$  is  $-(\text{CH}_2)_n-\text{CO}-\text{NR}^5\text{R}^6$ ,  $-(\text{CH}_2)_n-\text{NR}^5\text{R}^6$ ,  $-(\text{CH}_2)_n-\text{COOR}^7$ ,  $-(\text{CH}_2)_n-\text{CN}$ ,  
 $-(\text{CH}_2)_n$ -isoindole-1,3-dionyl, or  $-(\text{CH}_2)_p-\text{OR}^8$ ;  
 $\text{R}^2$  is hydrogen,  $\text{C}_1\text{-C}_6$ -alkyl, or  $\text{OH}$ ;  
 $\text{R}^3$  is hydrogen or  $\text{C}_1\text{-C}_6$ -alkyl;  
 $\text{R}^4$  is  $(\text{C}_1\text{-C}_6)$ -alkyl, halogen, halogen- $(\text{C}_1\text{-C}_6)$ -alkyl,  $\text{C}_1\text{-C}_6$ -alkoxy or  
 halogen- $(\text{C}_1\text{-C}_6)$ -alkoxy;  
 $\text{R}^5$  and  $\text{R}^6$  are each independently hydrogen or  $\text{C}_1\text{-C}_6$ -alkyl;  
 $\text{R}^7$  is  $\text{C}_1\text{-C}_6$ -alkyl;  
 $\text{R}^8$  is hydrogen or  $\text{C}_1\text{-C}_6$ -alkyl;  
 $m$  is 1, 2 or 3;  
 $n$  is 0, 1 or 2; and  
 $p$  is 1 or 2;  
 or a pharmaceutically acceptable salt thereof.

57. A method of treating Parkinson's disease by administering to an individual an effective amount of a compound of formula I or II



wherein

$\text{X}$  is  $-\text{N}=\text{}$  or  $-\text{CH}=\text{}$ ;  
 $\text{R}^1$  is  $-(\text{CH}_2)_n-\text{CO}-\text{NR}^5\text{R}^6$ ,  $-(\text{CH}_2)_n-\text{NR}^5\text{R}^6$ ,  $-(\text{CH}_2)_n-\text{COOR}^7$ ,  $-(\text{CH}_2)_n-\text{CN}$ ,  
 $-(\text{CH}_2)_n$ -isoindole-1,3-dionyl, or  $-(\text{CH}_2)_p-\text{OR}^8$ ;  
 $\text{R}^2$  is hydrogen,  $\text{C}_1\text{-C}_6$ -alkyl, or  $\text{OH}$ ;  
 $\text{R}^3$  is hydrogen or  $\text{C}_1\text{-C}_6$ -alkyl;

$R^4$  is  $(C_1-C_6)$ -alkyl, halogen, halogen- $(C_1-C_6)$ -alkyl,  $C_1-C_6$ -alkoxy or halogen- $(C_1-C_6)$ -alkoxy;

$R^5$  and  $R^6$  are each independently hydrogen or  $C_1-C_6$ -alkyl;

$R^7$  is  $C_1-C_6$ -alkyl;

$R^8$  is hydrogen or  $C_1-C_6$ -alkyl;

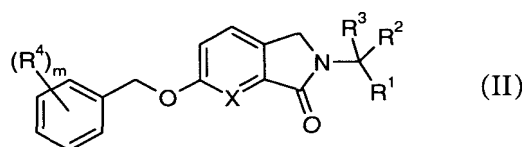
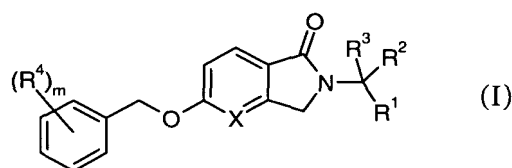
$m$  is 1, 2 or 3;

$n$  is 0, 1 or 2; and

$p$  is 1 or 2;

or a pharmaceutically acceptable salt thereof.

58. A method of treating senile dementia by administering to an individual an effective amount of a compound of formula I or II



wherein

$X$  is  $-N=$  or  $-CH=$ ;

$R^1$  is  $-(CH_2)_n-CO-NR^5R^6$ ,  $-(CH_2)_n-NR^5R^6$ ,  $-(CH_2)_n-COOR^7$ ,  $-(CH_2)_n-CN$ ,  $-(CH_2)_n$ -isoindole-1,3-dionyl, or  $-(CH_2)_p-OR^8$ ;

$R^2$  is hydrogen,  $C_1-C_6$ -alkyl, or  $OH$ ;

$R^3$  is hydrogen or  $C_1-C_6$ -alkyl;

$R^4$  is  $(C_1-C_6)$ -alkyl, halogen, halogen- $(C_1-C_6)$ -alkyl,  $C_1-C_6$ -alkoxy or halogen- $(C_1-C_6)$ -alkoxy;

$R^5$  and  $R^6$  are each independently hydrogen or  $C_1-C_6$ -alkyl;

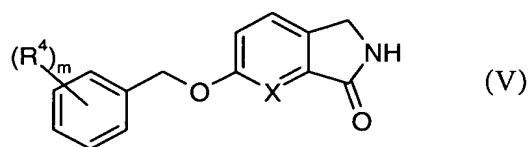
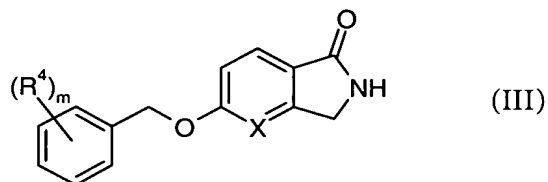
$R^7$  is  $C_1-C_6$ -alkyl;

$R^8$  is hydrogen or  $C_1-C_6$ -alkyl;

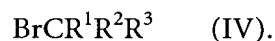
$m$  is 1, 2 or 3;

n is 0, 1 or 2; and  
 p is 1 or 2;  
 or a pharmaceutically acceptable salt thereof.

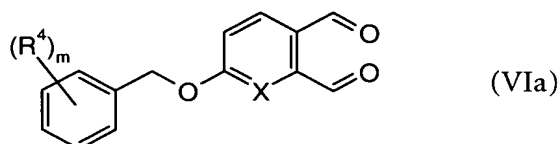
59. A process for the preparation of a compound of claim 1 comprising reacting a compound of formula III or V



with a compound of formula IV



60. A process for the preparation of a compound of claim 1 and pharmaceutically acceptable salts thereof, comprising dissolving a compound of formula VIa



which is then treated with a compound of formula VII

